## Case Name. Serial No. Applicant: Filing Date: Group: Case Name. Serial No. Applicant: Filing Date: Group: Applicant: Filing Date: Group:

## **U.S. PATENT DOCUMENTS**

*Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date
	AA	6,597,318	7/22/2003	Parsche et al.	343	700	6/27/2002
	AB	6,621,448	9/16/2003	Lasky et al.	342	22	4/5/2002
	AC	6,661,392	12/9/2003	Isaacs et al.	343	911	3/4/2002
	AD	2002/0175693	11/28/2002	Starr et al.	324	702	5/23/2002
	AE	6,002,368	12/14/1999	Faraone et al.	343	700	6/24/1997
	AF	6,473,050	10/29/2002	Foncin	343	754	3/30/2001
	AG	6,424,319	7/23/2002	Ebling et al.	343	911	11/20/2000
	AH	6,046,701	4/4/2000	Carey et al.	343	753	11/3/1997
	Al	4,090,198	5/16/1978	Canty et al.	343	18D	8/31/1964
	AJ	3,765,024	10/9/1973	Chiron et al.	343	854	4/20/1972
97	AK	3,543,271	11/24/1970	Scheel	343	705	5/24/1967

## FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation
	AL	WO 03/044897	5/30/2003	PCT	H01Q	15/10	
1	AM	WO 03/054592	7/3/2003	PCT	G02B	5/30	
	AN	WO 03/087904	10/23/2003	PCT	G02B	6/12	
	AO	GB 2 387 031	10/1/2003	Great Britain	H01Q	1/36	

OTHER (including Author, Title, Date, Pertinent Pages, etc.)

AP	Pendry, J.B. et al., "Extremely Low Frequency Plasmons in Metallic Mesostructures," Physical Review
	Letters, Vol. 76, No. 25, pp. 4773-4776, June 17, 1996.
AQ	Shelby, R.A. et al., "Experimental Verification of a Negative Index of Refraction," Science, Vol. 292, pp. 77-79, April 6, 2001.
AR	Kolinko, P. et al., "Numerical study of electromagnetic waves interacting with negative index materials," Optics Express, Vol. 11, No. 7, pp. 640-648, April 7, 2003.
AS	Shelby, R.A. et al., "Microwave transmission though a two-dimensional, isotropic, left-handed metamaterial," Applied Physics Letters, Vol. 78, No. 4, pp. 489-491, January 22, 2001.
AT	Grbic, A. et al., "Experimental verification of backward-wave radiation from a negative refractive index metamaterial," Journal of Applied Physics, Vol. 92, No. 10, pp. 5930-5935, November 15, 2002.
AU	Eleftheriades, G.V. et al., "Planar Negative Refractive Index Media Using Periodically L-C Loaded Transmission Lines," IEEE Transactions on Microwave Theory and Techniques, Vol. 50, No. 12, pp. 2702-2712, December 2002.

EXAMINER	DATE CONSIDERED

<sup>\*</sup>Examiner: Initial if reference considered, whether or not citation is in conformance with MPEP 609: Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant

AV	Eleftheriades, G.V., et al., "Transmission Line Models for Negative Refractive Index Media and Associated Implementations Without Excess Resonators," IEEE Microwave and Wireless Components Letters, Vol. 13, No. 2, pp. 51-53, February 2003.
AW	Pendry, J.B., "Negative Refraction Makes a Perfect Lens," Physical Review Letters, Vol. 85, No. 18, pp. 3966-3969, October 30, 2000.
AX	Markos, P. et al., pre-print for: "Structures with negative index of refraction," Physica Status Solidi A-Applied Research, Vol. 197, No. 3, pp. 595-604, Wiley, Weinheim, Germany, June 2003.
AY	Smith, D.R. et al., "Negative Refractive Index in Left-Handed Materials," Physical Review Letters, Vol. 85, No. 14, pp. 2933-2936, October 2, 2000.
AZ	Pendry, J.B., "Magnetism from Conductors and Enhanced Nonlinear Phenomena," IEEE Transactions on Microwave Theory and Techniques, Vol. 47, No. 11, pp. 2075-2084, November, 1999.
AA-1	Sievenpiper, D.F. et al., "3D Metallo-Dielectric Photonic Crystals with Strong Capacitive Coupling between Metallic Islands," Physical Review Letters, Vol. 80, No. 13, pp. 2829-2832, March 30, 1998.
AA-2	Wiltshire, M.C.K., "Bending Light the Wrong Way," Science, Vol. 292, No. 5514, pp. 60-61, April 6, 2001.
AA-3	Smith, D.R. et al., "Composite Medium with Simultaneously Negative Permeability and Permittivity," Physical Review Letters, Vol. 84, No. 18, pp. 4184-4187, May 1, 2000.
AA-4	Johnson, R.C., "Metamaterial' holds promise for antennas," optics, <a href="http://www.eetimes.com/storyOEG20010430S0110">http://www.eetimes.com/storyOEG20010430S0110</a> , EE Times, May 11, 2001, pp. 1-3.
AA-5	Smith, D.R. et al., "Loop-wire Medium for Investigating Plasmons at Microwave Frequencies," Applied Physics Letters, Vol. 75, No. 10, September, 1999, pp. 1425-1427.
AA-6	Smith, D.R., et al., "Direct Calculation of Permeability and Permittivity for a Left-handed Metamaterial," Applied Physics Letters, Vol. 77, No. 14, October 2000, pp. 2246-2248.
AA-7	Meeting Invitation for "Darpa Meta-Materials Workshop, September 29, 2000," published online at : <a href="http://sainc.com/conference/View/Invitation.asp">http://sainc.com/conference/View/Invitation.asp</a> , Greenbelt, MD, 2 pages.
AA-8	UCSD Press Release, "UCSD, Physicists Develop New Class of Composite Materials with 'Reversed' Physical Properties Never Before Seen," Press Conference, Minneapolis, MN, March, 2001, 3 pages.
AA-9	Left Handed Materials, published online by USD at: <a href="http://physics.ucsd.edu/~rshelby/lhmedia/intro.html">http://physics.ucsd.edu/~rshelby/lhmedia/intro.html</a> , March, 2000, 3 pages.

<sup>\*\*\*</sup>References listed beyond AZ would list as AA-1, AB-2, AC-3 thru AZ-26.
\*\*\*Note First Page ONLY Header/Footer. Subsequent pages must ONLY have page # layout as header